C.I.I.L. Reading Project Series-1

TEACHING EFFICIENT READING

PAUL C. BERG

CENTRAL INSTITUTE OF INDIAN LANGUAGES

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First Published: November 1971
Agrahayana 1893

Reprint: July 1977
Asadha 1899

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Price: Rs. 3

PRINTED AND PUBLISHED BY DR. D.P. PATTANAYAK, DIRECTOR, CENTRAL INSTITUTE OF INDIAN LANGUAGES, MYSORE AT THE C.I.I.L. PRESS, MANASA GANGOTRI, MYSORE 570006.

FOREWORD

The Central Institute of Indian Languages was set up on the 17th July 1969 with a view to assisting and co-ordinating the development of Indian languages. The Institute was charged with the responsibility of serving as a nucleus to bring together all the research and literary output from the various linguistic streams to a common head and narrowing the gap between basic research and developmental research in the fields of languages and linguistics in India.

The Institute and its four Regional Language Centres are thus engaged in research and teaching which leads to the publication of a wide-ranging variety of materials. Materials designed for teaching/learning at different levels and suited to specific needs is one of the major areas of interest in its series of publications. Basic research relating to the acquisition of language and study of language in its manifold psycho-social relations constitute another broad range of its interest. These materials will include materials produced by the members of the staff of the Central Institute of Indian Languages and its Regional Language Centres and associated scholars from universities and institutions both Indian and foreign.

Dr. Paul C. BERG, Professor of Education and Director, Reading Programme, University of South Carolina, U.S.A., worked for the Central Institute of Indian Languages during May-July 1971. The assignment of Dr. BERG as Reading Specialist to the Institute was arranged under the Ford Foundation Grant to the Central Institute of Indian Languages, Mysore.

This book is a sequel to the course of lectures delivered by Dr. BERG at the Central Institute of Indian Languages in connection with the Efficient Reading Programmes conducted by him during May-July 1971.

Central Institute of Indian Languages D. P. PATTANAYAK
Manasagangotri, Mysore-6 *Director*

PREFACE

This book is the result of a five-week Summer Course for Teacher-trainees in EFFICIENT READING at the Central Institute of Indian Languages, Manasagangotri, Mysore. It is divided into two parts; the first section contains basic theory from which Efficient Reading Programmes are developed; the second section contains practice materials to be used for developing the skills of efficient reading. The first section is not meant to offer a comprehensive presentation of all the theory that is basic to reading programmes. It does explain in some detail the more common theories and concepts that set the way for the formulation of the Programme in Efficient Reading that was taught at the Central Institute of Indian Languages.

Comment should be made about the selection of content for the chapters in the theory section. The chapter, 'What is Reading?, attempts to explain reading as a visual and perceptual process. In understanding how the eyes work in the reading process, the reasons for our recommendations for reading training should be clear. Recommendations for improvement follow the logical inferences made from a study of the literature on visual perception.

The chapter detailing teacher-interest in reading investigates further some of the research on reading and attempts to indicate why this information is important to a person interested in teaching reading improvement.

Concept formation has been discussed, because perception and concept development are very closely related. Ineffective concept development can have a direct bearing on the perceptual function in reading.

Problems related to cultural differences, detailed in the chapter following, are also very much akin to concept development and perception. Cultural differences are perhaps the best illustration of the way both concepts and perceptions are formed that are quite different from the dominant culture, thus creating their own particular reading problems.

Vocabulary building has been included because vocabulary, the words of language, are the 'building blocks' we use in developing concepts and modifying perceptions. Of course, the symbols of vocabulary are what make up the words of the printed page.

Comprehension in reading is the outcome of visual and perceptual skills and concept development. Critical reading is a refinement of comprehension skills, and flexible reading is the way in which all of these are brought together smoothly and effectively by the mature reader. The last chapter, 'Reading in the Content Areas' illustrates how the ideas developed in the earlier chapters may be applied to a particular discipline.

The overall production of these materials can be attributed in large part to the work of Dr. Chinna CHACKO, Research Officer at the Central Institute of Indian Languages. She transcribed the lecture-voice tapes that were made during my class lectures, and these transcriptions become the basis of the ideas appearing in the theory chapters. Without DR. CHACKO's encouragement and hard work these materials could not have been prepared.

DR. NARASIMHARAO has been responsible in helping to translate the materials into the several languages and contributed his administrative services to the success of the work. He also worked with the trainees in developing materials.

Thanks also to MR. TATAJI and MR. SOLOMON of the language laboratory of the Central Institute of Indian Languages for taping my lectures each day.

Typists are especially important to a work of this kind. Many typists donated their skills to a completion of the manuscript, but special thanks should go to Mr. Sukumaran PILLAI and MR. LAKSHMINARAYANA who did the larger part.

The Programme was made possible through a grant from the Ford Foundation to the Government of India. DR. PATTANAYAK, Director of the Central Institute of Indian Languages, offered the invitation to the Programme to be taught here. Thanks is also due to these for their interest in this area of language development.

PAUL C. BERG

University of South Carolina, U.S.A. *Professor of Education*
June 16, 1971 *Director of Reading Programme*

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INTRODUCTORY REMARKS

The Importance of Reading to the Professional Person

Some months ago I heard a radio discussion on the absolutely vital role that reading plays in administration of top government. In Washington, for example, according to the discussants, the paper-work has become so massive that many programmes are running far behind schedule because of the communications lag. Attempts to find some solution are of critical importance. Reading Programmes are of course one attempt to ease the situation. Many of the Federal and State organizations have instituted these programmes and many private reading programmes are working with literally thousands of Federal and business executives and employees.

I was talking to a gentleman just a few days ago who cited a position he had held in which his reading of memoranda and letters to which he was required to react amounted to something over 100 pages daily. Now in studies conducted at the Pentagon and the Agricultural Department in Washington it was found that most officers spent about four hours daily in reading activity.

Let us see how well the gentleman we mentioned can get through his 100 pages daily, assuming he has the four hours to read and analyze.

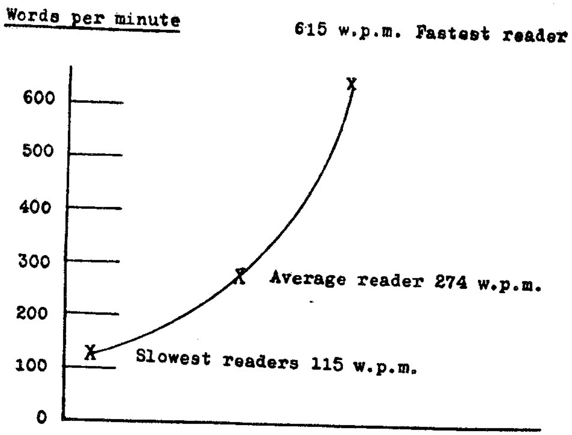
The following will give a general idea of the time involved to read 100 pages at various speeds:

Based on 400 words per page of print if your reading rate is:

Rate w.p.m.	Min. per page	Pages per hour	Time to read 100 pages		Probable actual time
			Hours	Minutes	
100	4	15	6	40	8 hours
200	2	30	3	18	4½ hours
300	1⅓	45	2	12	3½ hours
400	1	60	1	42	3 hours
600	⅔	90	1	06	2½ hours
800	½	120	0	50	1½ hours

If this is the actual data of the rate and amount of reading one can do, it was questioned as to how well governmental officials read, having so much material to cover a day. FULKER made this study with 332 officers and civilians of the Department of Agriculture and Pentagon. First, their reading speed was checked.

Before training Reading Rate scores of 332 officers and senior officials of the Department of Agriculture and Pentagon



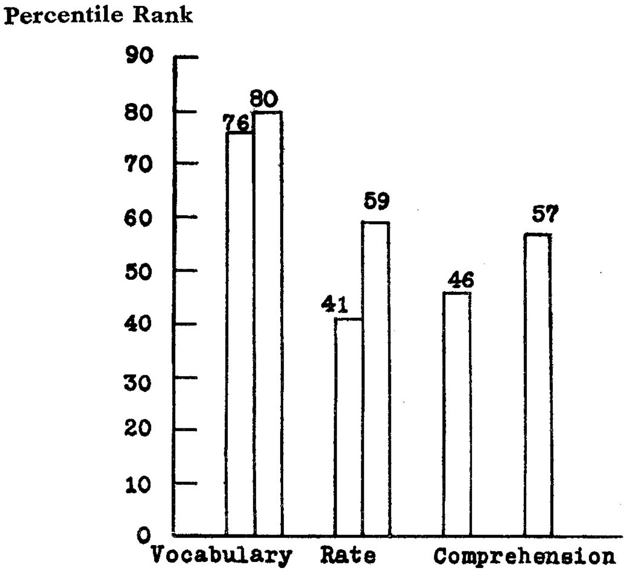
It was found that the average read at 274 w.p.m. In terms of the 100 pages daily reading he could just make it with no time to spare. The faster reader had a speed of 615 w.p.m. and the slowest reader had a speed of 115 w.p.m.

This slower speed made up around 10 per cent of the group or roughly, 33 persons. They would at least need eight hours just to complete the reading task only.

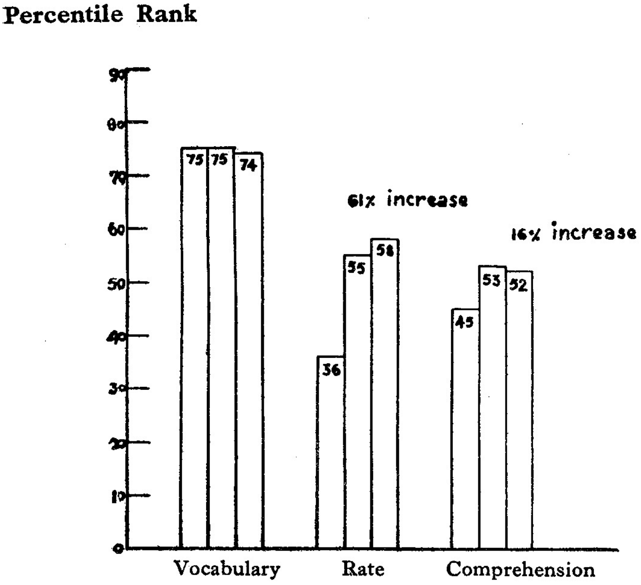
Then these people were given training in efficient reading. The results are given on page 3.

The graph indicates that no significant change came about in vocabulary knowledge due to instruction. The percentile before instruction was 76, the percentile in vocabulary after instruction was 80. The fact that no significant change occurred

'Before' and 'After' Training Test Scores on 244 VSDA Employees



'Before', 'After', and 'Follow-up' Retest Scores on 108 USDA Employees

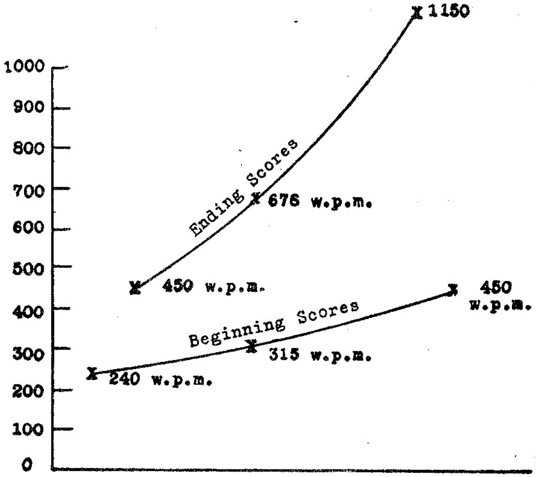


should be expected. Vocabulary is so much a part of the total thinking capacity and behaviour of the individual that rapid growth cannot be expected from a very short training period.

In rate, significant growth is indicated by a change in scores before and after training from the 41st to 59th percentile. In comprehension, a positive change through training is indicated by a change in percentile rank from the 46th to the 57th percentile.

In this graph 'before' and 'after' scores indicate the same facts as did the preceding graph, that is, vocabulary showed no appreciable change through training but rate and comprehension did. The third bar on the graph indicates any change that took place after 18 months following completion of the reading programme. This bar indicates that no appreciable change took place in this period, therefore, indicating that growth gains do persist well beyond the training period.

The following is a study done by the author in India with the senior officials in the Ministry:



At the beginning of instruction the highest speed was 450 w.p.m. of the 20 senior officials who attended the course. The lowest speed was 240 w.p.m. The average speed was 315 w.p.m.

After six weeks of training, the lowest speed was 450 w.p.m., which was the highest speed before the training. The average speed shot up to 675 w.p.m. and there were people who were reading at 1,150 w.p.m., almost 200 per cent gain in speed.

Some Causes of Poor Reading Habits

There are a variety of psychological and visual habits that more or less place a ceiling on how rapidly an adult can read and comprehend.

1. *Lack of effective techniques*

There must be an attempt to change—simply doing a thing over and over does not necessarily effect improvement. Take for example handwriting, which does not improve just because we write, is a case in point. Another good example is trying to draw a straight line blindfolded. It was shown that even after doing it 1,000th time, the line is still crooked.

So in order to improve, there must be a conscious attempt at change; change comes about not only by wishful thinking, but through doing certain things to break old habits and form new ones.

Emmett Betts, a foremost education and reading specialist, points out that many adults do not read any better than children at the elementary or lower school, because they have not had any training beyond this point. They have simply carried on into adulthood using the same old techniques. Many of us learned to read orally in the lower school which limits reading rate to 150-250 w.p.m.

2. *Lack of effective practice with new techniques*

A second cause of poor reading habits is the lack of effective practice with new techniques. Many do not practice often enough till the learning is reinforced well. And as a result, the rate gained is lost after a short time if the training is not meaningful and practice is not for a long enough period. It is a fact that practice makes it perfect—practice with understanding.

3. *Lack of practice in direct translation in reading symbols*

Studies in other countries have shown that a person who reads in two or more languages is probably not as rapid in the adopted one because of the tendency also to think the word that stands for the idea in the oral language or mother-tongue. In other words, we tend to compare the written symbol to one we may more commonly use in oral speech.

Continued intensive practice is necessary for the improvement of rate in the adopted or written language if this double kind of translation is, all or in part, eliminated.

Therefore, practice materials for rate training are often written somewhat more simply than daily work reading. The ideas and concepts chosen are consciously non-technical and about simple topics and ideas. The use of easy materials begins the task of changing reading speed more quickly than would technical material with many details to remember.

4. *Insufficient background*

Symbols on a page cannot create ideas; they can only bring together and rearrange ideas that the reader already has in his possession. Therefore, the less information about a topic one initially has, the slower he will probably read because there will not be a flood of mental associations to move the reader on to the next point of the writer.

5. *Technical materials*

Some technical subjects demand slow, exacting reading. The person gets used to a slow pace and he does not know how to shift to another rate for the less exacting, easier material.

6. *Visual problems*

This topic will be dealt in detail at a later time. Among the visual problems muscular imbalance, lateral forea, lack of co-ordination of the finer muscles are the more prominent visual handicaps.

To summarize, many adults read both slowly and with inadequate comprehension because they have:

1. lack of effective techniques
2. lack of effective practice
3. not a direct translation between word symbol and comprehension; word is compared to one in the more common spoken language or mother-tongue

4. insufficient background
5. technical details which demand a slower reading and
6. visual problems.

To replace poor reading habits with good ones, the first prerequisite is desire or need to read better and faster. The second is willingness to practice new habits until they are established.

Our daily reading is largely informational and related to the topics of our work.

1. Some of it contains many details, some very technical, and these must be read relatively slowly.
2. Other materials will be fairly simple in purpose and detail, and these can be read very rapidly.
3. Whatever the material, it usually has three general parts:
    (*a*) an introduction, usually stating a topic or idea or the purpose for writing
    (*b*) a development of the idea and
    (*c*) a conclusion, summary or ending.

Recognizing these parts helps one to rapidly organize his reading and thus read it more rapidly.

Who Is A Successful Reader?

A successful reader is a person who can handle large amounts of written material.

What are the Characteristics of a Successful Reader?

1. has purpose
2. can concentrate
3. comprehends what he reads
4. remembers what he reads
5. has a good vocabulary and
6. can read rapidly, but with rate depending on the material.

Knowing how to select the right combination of skills for a particular purpose—to change the rate of reading in a co-ordinated reaction to purpose and difficulty is the mark of the effective reader. This skill is called *flexibility*.

The *flexible* reader is a purposeful reader. He knows how to skim for previewing an article before reading, and he knows how to scan for specific information in a selection. He learns, from his preview skimming, to know whether to read the selection rapidly, at an average rate, or slowly.

Relationship Between Reading Flexibility and Speed Gains

According to a study by the University of Wisconsin reported in the *Journal of Educational Research* in January, 1971, it was found that people who have high flexibility can skim six to nine times faster than they read.

Sixty-four subjects were divided into three groups on the basis of the difference between their measured skimming and reading speeds.

1. Low Flexibility — 1:1–2:1
2. Medium Flexibility — 3:1–4:1
3. High Flexibility — 6:1–9:1

The low flexibility group skimmed only as fast as they read or at the most twice as rapidly. The medium flexibility group skimmed three or four times more rapidly than they could read, and the high flexibility group skimmed six to nine times faster than they read.

All the three groups were given rate training by use of the SRA accelerator. The teachers did not know the results of the flexibility ratios.

There were no significant differences in gain in reading rate from training between first and second groups. There were significant differences between second and third groups and first and third groups. The groups that originally skimmed significantly faster than they read benefited most from training in rate.

It is suggested that a person should be able to skim at least six times faster than he can read for rate training to be most effective.

Guide for Flexibility in Reading Rate

Slowest: Precise, reflective thinking

For such purposes as:	Such materials as:
Following directions	Problems, Recipes and other directions
Learning Verbatim	Religious and philosophical words

Ascertaining intricate relationships	Intricate technical materials
Understanding and solving problems	Poetry and drama
Gaining insight into depth of meaning	Maps and Charts
Oral reading	

Slow: Reading for information

For such purposes as:	Such materials as:
Comprehending thoroughly	Textbooks
Reading critically	Technical nonfiction
Studying for class work	Literary Press
	Encyclopaedia articles
	Editorials

Average: Recreational reading

For such purposes as:	Such materials as:
Enjoying stories—satisfying curiosity	Novels and short stories
Superficial comprehension	Biography
	Accounts of personal experience
	Magazine articles of general interest
	News items of temporary interest

Rapid: Scanning and Skimming, leafing through

For such purposes as:	Such materials as:
Finding a specific item of information	Reference Books
Getting a general impression of content	Indexes
Finding the proper place to start slower reading	Newspaper pages
Judging whether the material is suitable for slower reading	Magazines
	Books selected as of possible interest or value

WHAT IS READING?

Reading has many factors. First, reading is a visual process. It is the ability to see symbols clearly with the eyes. It is a perceptual process—perception meaning that our thought processes are able to take these symbols and to invest them with meaning. It is an experiential process, because without experience there can be no perception, for without experience the mind will be unable to invest meaning to the symbols that we see. Reading comes about when we take meaning to the printed page, not just the act of taking meaning from the printed page.

We often expect our students to be able to read and to gain meaning and knowledge directly from the page or book without background, without experience, without further information, without ever having been given the background knowledge about the information that he is expected to learn. A student cannot learn from his text without any experience beyond the page of print. This is a virtual impossibility. He must have experiences which surround it. For example, it would be an impossibility to learn chemistry from simply reading a book. One may learn possibly something about it; but one could not really learn chemistry, about the formulas, about acids, about the catalysing substances—without some knowledge other than a reading knowledge of it. One has to see them, smell them, handle them, know them by actually working with them. One may say that one can secure good grades even after learning by the book only. But this is probably because of the poor examination that was given, for it may have tested just his rote memory. Giving back ideas on an examination might have been a totally factual situation, completely devoid of any real learning.

What Is Learning?

Learning means that there is a change in behaviour through experience. Reading in this case is the experience, and there can be a change of behaviour only if there has been other things that go along with the reading. Suppose a person mixed a chemical substance to make a formula but his only experience to this point is by reading. He will therefore not know the chemicals by sight, by smell, and what happens to them when the other things in the formula are added. Unless he knows about these facts by actually handling them by himself he cannot be sure about the formula he makes. Even if something goes wrong he will not know whether it is wrong if he has only a book-knowledge and no actual experience outside the books. In other words, reading must have an experiential factor. Reading must have experiences tried in and related to it.

Vision and Reading

Vision in reading and perception in reading

Here we will discuss the function of each subsystem and indicate how each of these areas works together for final conscious vision.

In this discussion of vision we will be covering the following three aspects:

1. The Sensory mechanism.
2. The Motor mechanism—a binocular co-ordinating mechanism.
3. The Mental process which produces a conscious organizational patterning of this process into what we call visual perception.

First, we will discuss the basic mechanical equipment that initiates the act of seeing. The first of these is the two eye-balls, weighing only an ounce a piece. This ocular equipment does the fantastic job of seeing for us. This eye-ball has a lens, a shutter device, and internal fluid that aids focusing light waves. The shutter device is that part of the eye we usually think of as brown (or blue, for many Europeans). The black dot in the centre surrounded by the brown (or blue) ring is the window or lens into the internal part of the eye. Through this black dot light rays pass to the back of the eye. Finally there is a nerve sensitive area or retina at the back of the eye to which the light rays are focused. The light rays enter the eye, they are modified and adjusted by the fluid in the eye-ball to hit directly at a point of focus at the very back of the eye. The point to which it is focused is called the Fovea. The eye-balls make up the optic or refractive system.

The second system is the binocular co-ordinating system. The eyes are not fixed in a single permanent position, but they are free to move in their sockets through a wide angle. There is a set of muscles that performs this task of movement as well as another set that makes fine adjustments within the eye itself. There are six muscles that move or steer the eye towards the object at which it wishes to look. Any misalignment or maladjustment of those muscles will cause one eye to look at a slightly different point of reference than does the other eye. Then the person will either not see at all or he will see double. This problem of muscular imbalance, as it is called, or lateral or vertical forea does have some relationship to reading difficulty. If one is a slow reader and finds it difficult to learn to read rapidly even under training it is not impossible that he has a visual problem and that problem is muscular imbalance which causes the eyes to steer rather poorly, one eye being slightly out of alignment with the other eye.

There are two more sets of muscles. They are the intrinsic muscles and the ciliary muscles. They do the very delicate job of adjusting within the eye. One set of muscles adjust for light conditions just like a camera would—it opens or closes the curtain of the eye. The other set of muscles inside the eye adjusts the shape of the lens in terms of depth of field or the distance at which one is looking. When one is looking at a distance, the eye is slightly different in shape than when one looks at something rather close up. The whole idea is that there must be a sharp point of focus on the retina at all times. So these muscles work together to lighten or darken in relation to the amount of light which is falling on the retina while the other set of muscles adjust the shape of the eye so that there is always a constant point of sharpness on the retina. As one gets older, these muscles get weaker and they get a little rigid. And thus the ability of these fine muscles to focus is not as easy as when one was younger. This is why older people have to hold things at a distance to see clearly or use lens or glasses to make that correction. So in dealing with people beyond 35 or 40 years of age who are taking reading courses, the chances that they have progressive difficulty in focusing is a problem to be reckoned with.

Vision is a learned process. For example, we learn to move our eyes for a maximum of visual efficiency according to the visual task. Secondly, when the data from the optic nerves reach the brain, it is interpreted through our entire past experiences and visual reactions that we have previously made to like situations or like stimulations. For example, take two persons, one who can read and one who cannot read and have them look at a printed word. Now first of all the non-reader has not learned visual-motor attack techniques. He may not know, for example, that his eyes should move from left to right. He does not know what part of the word he is to look at to make the best visual discrimination. In fact he may move his whole head as he scans back and forth because he has never learned the fine muscle movements needed for a close exacting task like reading. Now both the reader and non-reader would receive visual impulses to the brain from the word. But the reader's visual impulses will be orderly, organized and structured for immediate interpretation in the brain. This is a learned process. He looks at the front part, he knows that some parts of words are more suggestive to the meaning or the pronunciation of the word, so the eye seeks for these clues. It is a learned task—a technical task which a person who does not know how to read does not know. The non-reader will be haphazard and disorganized. Even if he knows the letters of the alphabet he may not know the rules of visual combination based on common sound units. A person who does not read may have good vision, but he does not know how to use his eyes, he will not have been taught to operate in a directed logical way to figure out what the word says.

For the one who can read, however, the eye muscles steer the eye through a learned pattern of responses which select light energy from an object like a printed word. This light energy transformed into electro-chemical impulses is finally perceived in the brain as a decoded word. The perceptual area in the brain for the one who can read is prepared by many such previous experiences so that immediate visual memory takes over and decoding is accomplished. In other words, there has been a lot of previous preparation for a person who can use his eyes adequately for recognition of words.

Final conscious awareness of what is seen is more than the *sum of the parts of vision* taken separately. This is important, because working to correct one part of the system will not necessarily assume correction of the entire system. Neither does an observed problem in a part of the system necessarily mean that acceptable visual data for processing cannot be received by the brain.

The research shows that there is a small relationship between vision and reading, (not a high relationship). Yet, in a broader sense, vision is the key to a person's whole development including general school achievement. Personality, posture and adjustment to life are closely related to visual development. Experiments at Purdue University indicate that posture problems developed through faulty vision are retained throughout life. Spinal curvature, head tilts, unequal shoulder heights can be traced to uncorrected visual problems in the classroom. Behaviour is the most important clue to visual difficulties and various behavioural symptoms will be discussed later.

If we think about the whole cycle of vision it seems possible that a highly organized and well-programmed brain could indeed create conscious perceptual experience from less than an ideal sensory input. This reasoning also suggests that trying to find out a single cause for a reading failure such as a visual sensory defect is seldom realistic. While learning, the disabled students may need visual correction. But it does not necessarily follow that his learning will automatically improve or that his learning difficulty was causally related to his visual problem, *e.g.*, a person may have relatively poor visual acuity which is the product of the sensory mechanism and he may even have poor muscular control. Yet the perceptual area may be so highly and richly programmed by earlier experiences that his reading will be adequate.

We cannot learn much from books if we have not had any earlier experiences relating to the subject. If the teacher gives an assignment and asks the students to learn a particular thing without any experiences other than those out of the textbook, the mind is not collating or filling away experiences to which he can relate this reading and thus very little is learnt. Even in the learning of languages, just a learning of a language of a book is a very poor way of doing it. One has to have experience with the language; the brain has to have a lot of experiences in order to finally come around to say that that is what this is and that is what you are seeing. As was said earlier, perception is related to the sound, smell and touch of things that has been sensed in real experience. Reading is simply recalling these memories through the visual use of symbols. This idea of forming perceptions is related to the idea of forming concepts. Concepts cannot be formed except through a great many varied ways of approach to the same area of knowledge, *e.g.*, if all that a person does is to get information from a book, his concept of the idea is extremely narrow and he will never know much about that area, although he may be able to quote the book backwards and forwards. It is more than book learning, it is more than rote learning. It would be more useful to teach by giving various experiences even though one could teach only half of the amount this way compared to rote learning. It is better to have direct experiences of a thing, than to only read about all kinds of experiences.

Now let us look back to the Sensory Process to the thing we call vision. Several conditions may interfere with it. For example, there may be a blurring condition. There may be a muscular condition. These can obviously interfere with the ability to read. There are symptoms which are observable with these conditions. For example, if you see someone who excessively rubs his eyes, a person who frowns when he reads, who seems to want to rub away a blur, avoid close work, who blinks a great deal, who may stumble over small objects, who holds small objects close in order to see them or who may be sensitive to light, etc., a vision problem may be indicated. If three or four of these kinds of symptoms seem to be present, then there may be a visual problem and this person should be examined by a vision specialist.

The main point in terms of perception and vision in reading is that one can have a very good mechanical, optical system, and still be a poor reader because the perceptual system in the brain has not been richly endowed with ideas from other sources. On the contrary, one may have a poor optical system from a sensory point of view and be a good reader because he may have a very highly enriched perceptual system which has been built up through a great many experiences. The best and the ideal system, of course, is good eyes and a good mind. Vision is important but the build up of information through other ways is as important to the reading act as is good vision.

Lighting and Vision

Good lighting is important to good vision. Light is measured by foot-candles. It is suggested that about 70 foot-candles of light is required in a room. Poor lighting causes discomfort. It can cause visual strain. But it does not injure the eyes. Too little light cannot hurt the eye, but too much can hurt it.

Try to keep a proper light level. Do not get the room too dark. Have the light come over the shoulder preferably rather than having students facing a window.

Summary

While vision is important for reading, all kinds of experiences are also important to build up concepts so that reading can be meaningful and a minimal number of clues for reading can bring ideas to the readers' mind. So if the reader has either good or poor vision, the best way to use that vision in the best possible way is to build up perceptions other than through reading by many other ways.

Vision is very important, but the eye in itself cannot create meaning from the printed page. Meaning has to come through the touch, the taste, the feeling, the attitude, the talking about all kinds of experiences that can be fed into the brain mechanism if reading can really work.

The teacher has a role in vision by remembering that—

1. While vision is important for reading all kinds of experiences are also important to build up a concept formation. So that the reading can be meaningful and a minimal number of clues for reading will bring ideas to the reader's mind because he has had an enrichment of ideas through other sources besides reading. So if a person has good or poor vision, the best way to

use that vision to the best possible way is to build up perceptions other than through the reading act, through many other ways of teaching.

2. If there seems to be any students who have problems with vision that should be attended to, parents should be informed about it so that they can take him to an eye specialist.

3. Try to keep a proper light level. Do not keep the room too dark. Have the light come over the shoulder preferably rather than having students face a window.

THE TEACHERS' INTEREST IN THE READING PROCESS

Why Are Teachers Particularly Interested In Reading?

1. *The problem of illiteracy*

Illiteracy is a very serious national and international problem. It is not just limited to India or Asia; it is world-wide. The latest information by UNESCO shows that 50 per cent of the world's children of primary and secondary school age are not going to school at all. More than 40 per cent of the world's adult population—about 800 million—is estimated to fall below the level of functional literacy, when the criterion of 4th grade level of reading ability is used. In the last half decade, the criterion for functional literacy has been raised to sixth grade level. That is, a person should have at least six years attendance in school to be functionally literate. Obviously, raising the years of formal school has placed more persons in the ranks of the illiterate by definition.

A few examples of the level of illiteracy in different countries may be helpful to show the magnitude of this problem. Of the five and a half million inhabitants in Algeria over 15 years of age, four million, nearly 80 per cent are illiterates. Out of the 435 millions in India, about 300 million are illiterate. Only 5 per cent of the entire population of Ethiopia is able to read. Illiteracy rate is estimated to be over 50 per cent in 62 of the member countries of the United Nations.

2. *Changing role of literacy in the world*

Illiteracy has always existed, it grows daily more malignant as a social evil. In the earlier times with its traditional form of living, inability to read was hardly a handicap. It was a simple society, mainly agrarian and people learned to read for utilitarian purpose or to read religious books. But those times have changed with the coming of the industrial revolution. Today, the use of the results of technical development has been more and more necessary for survival everywhere, and therefore, illiteracy has become increasingly serious. As ploughs are being replaced by tractors, there will be fewer and fewer jobs available for unskilled illiterate workers in any part of our technical civilization. There is also a high correlation between poverty and illiteracy, both going hand in hand with superstition, malnutrition and endemic disease.

3. *Explosion of knowledge and reading*

Every ten years knowledge doubles. Teachers have to know a lot more today—five or six times more than when their parents were in school. A recent study conducted in U.S.A. shows that 85 per cent of the children who are at present in the early elementary schools, will, when they graduate from college, go out into jobs which are not yet invented.

4. *Subject area demands in reading*

With the growing technological and social complexity of the world, many more subjects are being included into the curriculum —not only into the school and high school but colleges as well. For example, in a sampling of high schools in the U.S.A. 800 different subjects are taught.

Teachers Are Interested In Improving Reading Ability

In the U.S.A., the movement of improving the reading skills of students started out with improving the skills of those persons who were having difficulty in learning to read. This was in the beginning. Now this is no longer the only direction of the newer programmes. Present programmes also take good readers and prepare them to be superior readers, because it is the person possessing superior skill who will be able to do a superior job in his chosen profession.

1. *Teachers are interested in the concept of readiness for different kinds of reading*

The idea of readiness is not a new concept. We must know what it takes to be able to read in order to know how to improve that reading. For example, we have to know what readiness skills a person should have to be able to read in social studies, in literature, in mathematics and in various curriculum areas.

Take the area of vocabulary. What if a student does not know the vocabulary of a particular field? He will not be ready to read extensively in that field until he learns how to master its vocabulary. Take the field of physics for example. What if he does not know the meaning of the terms of 'force', 'atomic energy' and all such specific vocabulary? He will not progress far until he improves his readiness by mastering the language of the field.

He may not know the meaning of the words that make up the writings of the discipline. Therefore, meaningful vocabulary is certainly one of the readinesses needed. Sometimes a word has a different meaning in a subject area—different from the general meaning of the term. For example, take the word *root* in botany and in mathematics and the 'root' of the problem as we generally use it. So although one may know the *general* meaning, one has to learn the *specific* meaning of the word in a specific field.

2. *Organization of the materials*

The knowledge of the way in which materials are organized is another kind of readiness skill- needed. Does he think how the materials are organized? Different materials are organized in a different way. For example, Shakespeare organized his plays in a different way than a chemistry professor would have organized a chemistry textbook. If one were to read aloud a chemistry textbook, the use of language in rhythm, pitch and intonation would be entirely different from the way he would read a play. And the general organization would be quite different. The way one reads a history book is different from the way a mathematics textbook is read. A different approach has to be used, for the concepts are different; paragraphs are put together differently, the reasoning is different; problem solving is different from one field to another. So to be able to find the kind of organization the author has used, another kind of readiness is needed.

3. *Skills*

Skills required in each area are different. The reader must know the particular kinds of skills that are needed in the specific subject area. For example, reading in science and mathematics may require specific steps of reasoning and special attention to detail. Reading in social studies calls for skills in organizing facts in order to understand time/space sequence or cause and effect relationship. Consequently, a person who is to read successfully should have those specific skills which are required in the particular area, in addition to his general reading ability.

Teachers Must Know Something of the Science of Reading

Reading is a fairly new science. Much of the research in reading has been done in the past few years unlike other sciences which have a long heritage of research. The first study of how people learn to read was done by JAVAL in 1879. He studied the eye-movements in reading. He discovered that while reading, the eyes move in discrete jumps across the line of print. The eye does not sweep across the page smoothly. Rather it moves and stops, then moves and stops. This discovery by JAVAL brought about the invention of the eye movement camera by which we can record on film the way in which the eye operates.

In this camera a light beam is reflected into the eye as the eye moves across a page of print, and that light is reflected into the film of a movie camera. This camera showed that while reading there is *fixation*. That is, the eyes focus and stop, see what they stop on, and then move to the next word or words and stop again. The eyes move and stop as many as five or six or seven times across a line of print. Then there is a return sweep. Then the eyes do it all over again.

There is also a duration of fixation—that is, the time the eyes stay still during a fixation. The eyes must remain stationary in order to record words. Then they jump to the next point and then there is another duration of fixation and so on. The average length of fixation, when the words are seen, is from ⅛ to ¼ second.

The interfixation movement, *i.e.*, the time when the eye moves between fixation or stop, is about 1/25 of a second. It was found that only about 6 per cent of total time of reading is spent in movement.

Then the eyes were also found to make regressions during reading, that is, the eye goes back to pick up along the same line of print words that were missed the first time over. A poor reader will make many more regressions than will a good reader. It is estimated that a good adult reader makes about one regression (backward movement) for every three or four lines, whereas a poor reader makes three or four per line.

There are two ways of measuring the number of letters or words the eyes can see at one fixation. One method is by the use of the Tachistoscope, an instrument that flashes letters or words for a short duration of 1/25 or 1/50 of a second. Without training on the tachistoscope, a person can see and report three or four single letters or around two words. After training, a person can see and record six to eight single letters or five or six, or even more words during this single tachistoscopic flash.

The other method of measuring the number of words seen per fixation is by use of the eye movement camera described above. Here it was found that the number of words seen per fixation during reading was one, and no more than two, words.

It was supposed for several years that because the span measured by the tachistoscope could be improved by training, that this training automatically transferred to the span used in regular reading. So it was commonly said that a person who had training with the tachistoscope could learn to read right down the centre of the page and see all the words of the line on each pile.

But in actual practice it does not work that way. TAYLOR's experiments with his eye movement camera showed what happens when the eye is in its saccadic and fixation movements. It showed the difference in the fixation and saccades when one reads a continuous line as opposed to reading a discrete number of letters or a fixed number of words. The mind, when reading, must pool all the information being received and associate it with past experiences related to it. Therefore in actual reading of continuous text the mind can deal with only about two words at a time. In the span measured by the tachistoscope, which is a discrete span, not having continuous text that precedes it or follows it, one can learn, by training, to see large wholes. But when the eye is in motion to read a continuous text something else happens in the 'computerized' function of the brain, narrowing the span so that comprehension can take place. This second span that the eye movement camera measures when the eye is in the process of reading continuous text is called the *span of recognition.* The span of perception measured by the tachistoscope can be as large as six to eight words, but the span of recognition is only about two words.

Table of Eye Fixations, Regressions, Durations of Fixations, Average Span of Recognition and Average Rate of Comprehension from a Sample of more than 6,000

Grade Level	1st	2nd	3rd	4th	5th	6th	JA	HS	C
Fixations per 100 words	240	200	170	136	118	105	95	83	75
Regressions per 100 words	55	45	37	30	26	23	18	15	11
Average Span of Recognition (in words)	.42	.50	.59	.73	.85	.95	1.05	1.21	1.33
Average duration of fixation (in seconds)	.33	.30	.26	.24	.24	.24	.24	.24	.23
Average rate of comprehension (in words per minute)	75	100	138	180	216	235	255	296	340

The above Table by TAYLOR* indicates clearly what we have discussed in the preceding pages. Note the 'College' column. In a 100 words, the average college student fixates 75 times along the lines of print or seven or eight times per line, *not* once or twice as has been advertised by some programmes. Notice also that as the college student has progressed through school he makes less regressions, indicating that good readers make fewer regressions. The span of recognition is, at the college level only 1.33 words per fixation. This figure is derived by dividing 100 words (words in the sample) by the number of fixations. Note too, that the duration of fixation does not change noticeably—only a tenth of a second from the first grade on. The final listing in the Table has to do with rate. TAYLOR's sample of college students were shown to read at 340 words per minute. This figure is somewhat higher than is reported by other studies which tend to show college students reading around 280-300 words per minute.

* Earl A. TAYLOR: 'The Spans: Perception, Apprehension, and Recognition'. *American Journal of Ophthalmology*, 44 (October 1957), 501-507.

However, because it was believed for a long time that the span of perception transferred directly to the span of recognition many of the courses for speed reading were set up on this basic assumption. So in the earlier programmes much training was given in perceptual span training with the tachistoscope. But as was said before, a broader perceptual span (tachistoscopic span) does not give a broader span of recognition as measured by the eye movement camera. Physiological and psychological constructs of the eyes handle the two situations quite differently.

But continuation of this idea has developed many newer pieces of equipment—such as the reading accelerator E.D.L. Controlled reader, etc., to mention a few. As early as 1940 Iowa State University as well as Harvard University had developed programme of continuous text on 16 mm. films.

Taylor's and other studies were aimed at studying the eye-movements and the visual process involved in reading. But it was Francis P. Robinson at the Ohio State University who made some early studies on the problem of comprehension—the problem of how one really learns from his reading, not how a person learns to say, or recognize, words. Present research oriented courses on efficient reading are based on the ideas developed as a result of Robinson's studies. For example, the idea of surveying or previewing first before we read; the idea of asking questions during that preview; the idea of reading then to answer these questions and to select the rate of reading which is related to our purpose and our need; then the idea of reciting after we have read to make sure that we know what we have read and then reviewing or looking again, scanning those items that we missed in the first reading. Robinson found that the most common method used by teachers to improve the reading, that of reading a second time if they did not get at the first time, was not a sound practice at all. He showed that in the first reading the mind becomes set to the ideas that one has learnt in the first reading. The configuration or the *Gestalt* of that whole reading is so well set in the mind that the second reading does not appreciably teach any more than the first reading. For example, when the sentence 'Paris in the the Spring', was read by a group of students the mind was set so much that even in the second reading they again made the mistake of leaving out the second 'the'.

Because the mind has a way of setting itself at the first exposure, it does not like to change the earlier impression. That is why it is important to set your impression first by skimming. Then the mind will operate on that impression to gain such knowledge as it should during that first reading. Skimming or reviewing first and reading secondly with questions, is a much better technique than a second reading.

Many people claim that newspaper articles or other articles can be read at the rate of 30,000 to 40,000 w.p.m. But this is not a fact according to research, for it shows that there is a psychological limit of how many words the eye can take in per minute. A study made of a programme that claimed to raise speeds to 30,000 or 40,000 words, showed that students gained only 20 per cent increase over their original rate. The New Delhi results based on the scientific method, on the other hand, showed a 125 per cent increase over the original rate. The fact is that the eye moves in a mechanically consistent way, and that it moves from one point to another, and takes in about two words per fixation as it reads. It was found that after taking into consideration the movements and fixations in continuous reading that the maximum rate the eye can take up is only 800 w.p.m. When people claim they can read at the rate of 30,000 to 40,000 they are not reading the material; they probably are skimming it.

One of the earliest scientific studies on rapid reading, dated, even before the statistical facts about rapid reading was known was done by Paul WITTY. He asked the students to read any easy reading material 30 minutes a day. They were to read as rapidly as they could and to make a summary after every reading. The students were encouraged to read extensively in different subject matter. After one semester, results in testing showed that the students had increased in the rate of reading by 50 per cent and also improved in comprehension. The programme was continued a second semester and students showed even greater improvement. This and a good many other studies have shown since 1930 that one of the best ways of improving reading is simply doing that very thing—reading. As was said earlier, these students improved their reading just by reading simple materials.

Some of the commonly used tools for rapid reading are the reading accelerator and controlled readers. They have a cohesive effect by keeping the class together. They have an effect of creating motivation through a novel approach. But like any other audio-visual aid they are only aids to good teaching and they do not teach in and of themselves. So it is not necessary that one must have these machines to teach rapid reading. The idea is to teach to become a more flexible reader by selecting ideas on the printed page and not reading everything, and being able to do that carefully and discretely and with good judgement and to do it very rapidly. And so we are teaching the skill of preview skimming, overview skimming and scanning. Many programmes have shown how they have improved successfully the rate of reading with better comprehension without the use of the equipment. But these instruments have their use in pulling the class together and in motivating the students, and is a kind of incentive. But nothing is happening visually that could not happen by your own determination to improve your skill of rate of reading by simply forcing yourself to read faster. Machines can make it interesting but cannot add to the process.

Teaching of rapid reading for adults on a wider scale was started in 1952 simultaneously at the University of Pittsburgh and the University of Chicago. Since then literally thousands of courses have been taught—with machines and without machines.

CONCEPT FORMATION AND READING

A concept is a process which helps a person to recognize similarities in otherwise diverse objects, situations or events. It is a cognitive organizing system which brings the pertinent features of past experiences to bear upon a present object or stimulus. In other words, it is the ability of the person to distill all of the essential similarities from a series of objects and events and see those similarities in an object or event which he has not seen before.

Suppose we are to teach a child about a tree—we give him one object as a representative of a tree—say, we point to a mango tree and say 'this is a tree'. A little later we may point to another tree, say, a coconut tree, and ask him 'what is that?' He has no reference to think back upon to say that a coconut tree is also a tree. So if he does not say 'tree', we may think that the child has not paid attention or is not as bright as he should be. You may point out the fact that you have told him about a tree. So the child learns after a variety of experiences to see the similarities in the trees although the coconut tree looked different from the mango tree. He begins to generalize—or see that they stand straight—they have leaves, trunk, bark. Thus when he gets more and more acquainted with trees he comes to make these generalizations and he comes to know that a tree is a tree, although it may have characteristics unlike any he has ever seen before. He will give those characteristics which are similar to all trees and leave out those characteristics which are not similar, *e.g.*, the mango tree covers a lot of space whereas the coconut tree does not cover very much space. The mango tree has branches whereas coconut tree does not have. So this is how the concept is formed—the idea of taking all of the similarities from a body of diverse things and seeing them as having certain common family characteristics.

Some people are not able to generalize or form concepts easily. They are not able to recognise even in conversation ideas which are not very specific and explained. They are not able to see relevances. And when a person gives an example, the listener may not understand what the person is talking about, because he has a very narrow idea of the concepts that are involved in the conversation. He just does not see the common elements in the example which fit.

Teacher's Responsibility In Developing Concepts

A student really cannot get to the point of knowing about a subject area unless he can generalize on that area; has concepts about the subject. The teacher should help the students to classify, to organize, to unify ideas and details under generalized headings. This training will help the student to learn concepts more effectively.

Sometimes teachers fail to help the student to form concepts by failing to create a learning situation that is conducive to learning concepts. They make learning situations little discrete units and do not bring all of them together to show organization and how they fit together. For example, teaching phonics apart and separate from language is an illustration of poor concept teaching. Phonics should be taught as a part of the whole of language. The relationships between phonics and other aspects of reading should be made clear.

In concept formation there are factors other than good teaching. Maturity is another. A younger child does not have the maturity nor the experience to form concepts. The general level of intelligence will also have something to do with concept formation. Teachers should be aware of these age levels and should be willing, able and knowledgeable about expanding the student's world in the formation of these concepts when he is able and willing and mentally capable of doing so. This can be done by having all kinds of experiences available rather than giving only lectures. There should be experiences that the student can involve himself in.

These ideas about concept formation can be tied in with perception. We understand through experience, and our whole perception is an accumulation of experiences. The way in which we are able to perceive objects and events conditions how we form concepts about them and the concepts that we have condition the perception we make.

Another thing to keep in mind is that the experiences that teachers give should be relevant. Teachers have to search out for the students' interests, aptitudes and things that have relevance to the students' world. The materials we use have to meet the individual's needs. The materials have to be tailored by the teacher to suit these needs. They have to be planned. Availability of materials in itself does not guarantee good teaching. These machines and tools that are used in this programme help. But no automated classroom can do by itself individualized programmes. The teacher has to prepare them according to the needs of his students individually. It is also a fact that more materials in a classroom does not make necessarily a good learning situation. Also, too many machines alienate the students from others—the sociological element is not there. We have to work with the students in an ongoing social context. Relating classroom experiences to the everyday life outside the classroom is another way of helping to build concepts for they can see, know and learn through experiences common to them.

PROBLEMS OF THE CULTURALLY DISADVANTAGED

Language is one of the most important tools of learning to read. Time and again it has been shown that one's ability to read and make meaning out of the printed page depends upon one's language facility and past experiences. Now this raises the question of the students who do not have that facility in the language of instruction. These students may speak a different language or dialect at home. These are situations in which there are more than one language spoken in school, where there is some understanding but not total understanding. What are the problems faced by those children? How are their differences in communication with the middle class culture related to methods for their instruction in reading? This question is most relevant in India where there are 1,658 mother-tongues; where the medium of instruction in many instances may be (is) vastly different from the languages and dialects spoken at home.

Culturally different is the term used for those people whose language is usually different or at least dialectically different from the teacher. The attempt to segregate by terminology has its problems, causing false barriers to be erected as is shown by the studies of ROSENTHAL and BEEZ. Their studies on self-fulfilling prophecies in behavioral research showed that by labelling students, negative expectations were planted in the minds of teachers, which produced low performance on the part of students at a significant level of one chance in ten million that the difference was only coincidence. ROSENTHAL took I.Q. scores on classes of students and simply told the teachers the kind of scores that these children had. They did not give the correct scores to the teachers. The teachers assumed that they were actual scores. At the end of the course it was found that the children performed in terms of the scores ROSENTHAL had given and not in terms of their actual scores. The attitude a teacher has towards a child in a classroom has a great deal to do with how that child is going to perform. Two things account for it. First, teachers mark in terms of this. Second, the child himself tends to perform according to what the teacher thinks he is.

In helping the culturally disadvantaged students to learn to read one must bear in mind the fact that the general category does not indicate what certain characteristics are actually present or whether even, if present, they can be considered an educational disadvantage. These facts must be determined individually.

One of the general characteristics is that since language represents the humanizing element that brings true intimacy between one another possible language differences have a way of separating and alienating as well as the opposite. There is no dearth of examples for this phenomena.

In India, apart from the various regional languages, there are dialect variations within a particular language itself. The language varies from area to area horizontally and vertically; it varies according to community and education. Language being what it is, language patterns may act as a significant restriction to reading achievement unless certain basic principles about the language-reading relationship are considered during reading instruction.

According to LEFERVE 'language forms a network, a continuous webbing indissolubly linking inner man, his thoughts and emotions with other events, actions, sanctions, social groups and institutions'. He continues to say that 'thought at higher levels is inconceivable without a prior development of both the audio-lingual and manual visual systems of language.'

Regarding the interdependence between the words of language, experience and reading, Alexander JOHNSON has this to say. 'Words', he says, 'can refer us to sensible information which we have experienced; but they cannot reveal to us what we have not experienced.' Reading is the mental process of reconstructing the experiences behind language. A child in the middle class acquires spoken language through feedback correction of his own active speech. For example, a child speaks and he is understood. He has asked for something; he gets it. There is a feedback of reaction to that speech. There is a conscious knowledge that the language has been received in one way or the other.

The culturally disadvantaged learns his language by passive exposure without the operant control of feedback. From a very culturally disadvantaged background very little oral language is used. Without guided perception of things which he has experienced or verbal manipulation of ideas about his experience, very little in terms of a significant body of meanings or concepts can be accumulated. Language has little use for him as a mediator in his interpersonal relationships. This restriction by simply passive exposure is related to the way he experiences. He cannot accumulate perception, knowledge. Under the normal teaching conditions he will not learn to read if he has not had previous exposure to the use of language in his everyday world.

Hence there is a very strong interdependence between language, operant feedback, thought and experience and the power of these functions to reconstruct and reassociate through reading.

However, just because a person speaks with a dialect or accent does not mean that the difference is educationally handicapping. The syntactical and grammatical level of the person's native language or dialect may be used as a present potential for language facility in the adopted culture, for the rules under which the native language operates transfers from one mode to another with relatively little difficulty. But for a person who has not developed a complex syntactical or grammatical fluency in his first language, little transfer can take place. Attempts to educate through the second language will find difficulty, because it does not have the requirements to carry as a sophisticated kind of activity as the language to be acquired. For example, a tribal child may find it difficult to learn through English or Hindi. For a child coming from one of such areas the whole language structure is different. It is a change from a simple structure to a complex and more sophisticated structure.

There are other facts of a language difference that are more than linguistic; they are the far reaching effects in the total adjustment of the individual, maintaining a wall of separation between him and the world into which he is thrust.

To begin with, he has had few experiences with toys, pictures, books or magazines and few, if any, of the other common denominators of middle-class life. Very little spoken language has passed between him and his parents. He possesses strong negative feelings concerning his personal worth and devalues himself as a student. He has not learned to communicate, especially with the middle-class, developing instead fears and suspicions of their way of life. This whole process of exclusion, based to a significant extent on linguistic separation, helps to set a self-concept that has a higher correlation to achievement than do so-called measurements of intelligence. As said earlier, this self-concept is based on at least two factors: The expectations one's society and peers have for him and the kinds of behaviour patterns which the individual himself selects as a 'style of life,' which helps determine what he will see and hear, think and say, remember and forget. Any value which is inconsistent with the individual's valuation of himself cannot be assimilated; it meets with resistance and is likely, unless a general reorganization occurs, to be rejected.

The typical classroom which is usually geared to middle-class speech patterns, likely places this linguistically different child in a 'slow' or otherwise labelled class. And this probably contributes significantly to his feelings of inferiority and likely creates lowered expectations on the part of the teacher also.

Added to this physical exclusion are too often found intolerance, rigidity, strict discipline and even physical force meted out by the teacher. To start with, the student does not come out with a built-in feeling of relatedness to the classroom and these actions do nothing to lessen his feelings of rejection. This is why it is strongly recommended that the reading and writing of the classroom must reflect the identity of the learner to the extent that they do not feel they are discarded. LOBAN also stresses that the language the child brings should be fostered as a means of thinking, exploring and imagining, helping the student to develop and amplify his own language to the full range of his linguistic potential. FLEMMING emphasizes the point that reading instruction should not be a test of a'match in pronunciation between the student and teacher, but that differences in pronunciation, even substitution of words, should be seen as differing from mistakes in reading. To do this well the teacher has to know the 'language' of the student, including his grammar and homonyms.

Assuming the ideal that the teacher has learned the language of the student, the teacher must have yet another change of heart or practice from the typical classroom. The teacher habitually dominates the interactive opportunities of the classroom by his own speech. If the student is to learn how to interact and to communicate within the classroom, then this is going to have to change.

One method studied to bring out this change is through self-directive dramatization of stories. Self-directive dramatization refers to the pupil's original, imaginative, spontaneous interpretation of a character of his own choosing in a story which he selects and reads co-operatively with other pupils in a group which is formed only for the time being and for a particular story.

Another good way to bring together the student's experiences, language, thought, feedback and reading is through the language experience approach. The idea of building all the language arts from an organic vocabulary is described by Sylvia ASHTON-WARNER. It is organic because it springs from the innermost recesses of the child's inner self, expressing his fears and desires. These first words are the bridge from the known to the unknown and from the inner man out. They have intense meaning for they are a part of the thought process of the child himself. The above approaches are some techniques for working with children with language differences. They illustrate the kinds of things that teachers can do to capitalize on the strength that the student brings with him to the classroom. It should also be kept in mind that the student or the group must at times at least be the power variable psychologically within the classroom; it need not always be the teacher. Role playing, activities growing out of language experience approaches and the like, can help bring together parts of both worlds—the world of the student and the world of the classroom. The student's perceptions from his environment are not interpreted as grotesque, but are superimposed upon the adopted culture, creating at least a medium of integrity for him within the capabilities of his own psychological system. Further, these activities have indicated inter-dependence between language, operant feedback, thought and experiences and the power of these to reconstruct and reassociate through reading.

VOCABULARY BUILDING

The need for a good vocabulary is obvious. The whole language process is based on our ability to manipulate words. Our ability to speak, to listen, to read and to write are based upon the ability to recognize the meanings of the words which are used in this symbolic process. If we have a poor listening ability and understand relatively few words that we hear we are going to have a poor speaking facility and obviously we are going to have poor results in attempting to read effectively and efficiently. Vocabulary is also very much related to the process of intelligence. It is very difficult to separate our ability to handle words from the whole process called intelligence. Most of the commonly available intelligence tests such as Binet indicates that the verbal facility of those factors which make up intelligence is the most pervasive, being included in most of the other variables of intelligence.

How Can One Improve One's Vocabulary?

The first, and probably most important way is to cultivate an interest in and a curiosity about words and language. Why are words as they are? Where do they get their meaning? These are the kinds of questions one should ask about words one does not understand or one does not know. One should be curious in finding out just what they mean. If one is curious about what a word means one will look it up in the dictionary or try to find out the meaning in some other way.

Using Context

A second way is to realize that words, being what they are, have no real meaning except as they are found in the context of a sentence. That is, the other words that surround it give its meaning. Many words may have totally different meanings depending upon the context in which they are used. A family tree, a tree of languages—the 'tree' used in that context has little or no relationship to a tree that grows on the ground. And there is a tree that you hang your clothes on at home. The word tree gains its meaning from the sentence and from the way in which the word is used. The word in itself has no meaning. Therefore, I do not subscribe to teaching vocabulary in lists of words without context; vocabulary cannot be learned out of context, because it is from the total context that the word gains its meaning. A simple illustration will indicate the point.

My watch is *fast.*
The horse runs *fast.*
The horse is tied *fast.*
He did not eat because he was celebrating a religious *fast.*
Fast by the stream stood a small cottage.
She wears colour *fast* clothes.
He leads a *fast* life.

What then does the word 'fast' mean? It means whatever each of the previous sentences suggests that it means. Therefore, a study of the context will often tell you the meaning of an unknown word. Practice this skill and you will discover that a large percentage of difficult words can be defined by a study of the full context in which the difficult word is used.

Affixes and Roots

Words may also be recognised by the common elements or parts that are a part of the word. These word-parts are prefixes, appearing at the beginning of a word; suffixes, if they appear at the end of a word; and roots, if they make up the main portion of the word. It has been estimated that 21 selected affixes and roots are a part of 1,00,000 English words. For example, an illustration of prefixes are:

	Meaning	*Example*
ante-	in front of	antedate
circum-	around	circumference
equi-	equal	equidistant

Suffixes are illustrated by—

ee, *eer*, *ier* as in grantee, engineer, financier.
ist as in accompanist.

Roots are illustrated—

	Meaning	*Example*
dei	God	deity
mort	death	immortal
scrib	to write	inscribe

No one technique can alone make you to look up the meaning of all unfamiliar words. However, being basically curious about words, attempting to discover the meaning of unfamiliar words through context and looking for recognized affixes or roots will help considerably in building your facility with words.

COMPREHENSION IN READING

What Is Comprehension?

One of the earliest recorded studies of reading as reasoning was that of THORNDIKE in 1917. The first factoral study of comprehension in reading was made by DAVIS in 1941. A factoral study means that an attempt has been made to separate the component parts of reading in order to discover what the statistical values are of the various kinds of things one does that helps him to comprehend while reading. For example, it is obvious that one of the factors in reading would be vocabulary. What are the other factors? These are the kinds of questions that a factoral analysis of reading attempts to answer. DAVIS's study indicated that reading behaviour was related to the psychological aspects of reasoning as well as to the ocular and mechanical. DAVIS hypothesized nine variables but found that only five met his criteria, *i.e.*, five were significant. They are given below:

1. Vocabulary—knowledge of word meanings.
2. Verbal reasoning—being able to reason with words.
3. Sensitivity to implications—being able to understand implications, or what a writer implies.
4. Following the structure of passage—to know how it is structured and being able to follow the structure.
5. Recognizing the literary techniques of the writer.

In 1946, THURSTON reanalysed DAVIS's data and concluded that DAVIS had no statistical claim for his findings and that only a single or general factor comprised reading ability. HALL and ROBINSON in 1945 identified comprehension accuracy, rate of inductive reading, word meaning, rate for reading unrelated facts and chart reading skills. Another team identified only two factors—semantic difficulty, *i.e.*, the difficulty of the sentences, and word difficulty. In 1964, another team attempted factor analysis and they found only two skills that were statistically defensible, *i.e.*, word knowledge and paragraph comprehension. In 1966, DAVIS did another factoral study using his original hypothesis. He found again that five skills were significant. The one that made up the greater part of the variance was again memory for word meanings. He found that vocabulary made up 32 per cent of what we mean by reading comprehension. The second factor was drawing inferences 20 per cent, *i.e.*, to find out what the author is saying 'between the lines'. Being able to follow the structure of a passage was 14 per cent. Being able to recognize the writer's purpose, attitude and tone, was 11 per cent. Ability to find answers explicit or in factual questions 10 per cent. This makes up 87 per cent of the total comprehension, the remaining 13 per cent was made up of the other three factors he studied. Another team, as late as 1969, reported a study of reading comprehension done in Iowa. This team investigated eight factors as possible 'building blocks' in comprehension, but found only four of these to be actually related to comprehension of reading. They were (1) speed of reading; (2) ability to listen; (3) ability to classify the words and (4) speed of noting details. A later study also found vocabulary to be very significant, as was ability to note rhyming sounds.

There are taxonomic analyses also of reading. A taxonomy is a listing of all the possible skills that are seen to exist in an orderly category of presentation. One researcher hypothesized four basic steps to be present and further reasoned that these four could be broken down into sub-factors. These four basic factors were—

(1) literal comprehension with 15 sub-factors;
(2) ability to re-organize with 13 sub-factors;
(3) ability to evaluate with 5 sub-factors; and
(4) ability to appreciate literature with 4 sub-factors.

Another area of interest has been in an attempt to define comprehension as that of building concepts. Words one hears or reads can help to give objects, dimensions or attributes for classification and this classification is a part of concept forming. One way of classifying is by defining a thing in terms of its operation. For example, a bicycle—it gets people from one place to another. If this is basic to comprehension, then a person comprehends by being able to classify, to identify, to recall and to re-order and relate that which he has read. Teaching for reading comprehension would then include training in identifying, recording and classifying.

To summarize, one way of defining comprehension is by seeing if there are certain factors which are analyzable as being separate and discrete by the statistical performance of factoral analysis. Reading can also be thought of as putting down in logical sequential order all of the steps which could possibly go in to making up comprehension or the way in which a person is able to get meaning from the printed page. This is listing in a taxonomic or in an outline form all of the steps in order and in sequence. A third way is to think of reading as a conceptual act or as building concepts. If a concept helps to give each finite or individual item within our environment a classification, then with them one is able to build various kinds of organizational systems. Then if reading is a part of being able to do this, as we learn to classify from our reading by learning to recall, identify, order and relate, we have learned to comprehend.

These are some of the ways people have looked at reading.

What are the implications of these research studies in the writing of textbooks on reading?

A study of the various workbooks on reading indicates that some writers write workbooks mostly after their own opinion and with little attempt to follow of what is known of research. But some writers of workbooks have relied on research very heavily, although they are in the minority.

Research On Rate of Reading and Comprehension

The facts from the research on the rate of reading and comprehension indicates that bright, fast readers do tend to comprehend better than bright slow readers. That is, brighter, or very intelligent people comprehend better if they learn to read faster. The duller student reverses this relationship. The faster he reads the less he comprehends, for a person who is not very intelligent cannot learn to read rapidly effectively. But the bright student can learn to read rapidly effectively. On the other hand, in the contents of mathematics and science a low negative relationship exists between the rate at which they are read and the amount comprehended. That is, if one is going to read something highly complex and technical such as science or mathematics, then one must read it slowly.

In other words, the more unfamiliar and complex a writing is, the more slowly it must be read.

Questions and Reading

Research has shown that the more questions that a person is able to ask relative to what he is reading or learning the higher his comprehension will be. This, as you know, is a part of our preview-skimming technique. That we teach previewing and questioning before reading was included from basic fundamental research which has shown that the more questions one is able to raise before reading the higher his comprehension will be.

To summarize, while research is not inclusive and we do not have a concluding statement on research in comprehension, we can say certainly that these studies indicate that vocabulary is important, the ability to understand the various details in a reading by answering questions is important, the ability to understand the inferences that may be picked up in a reading are important, and that the ability to read flexibly or with a fairly good rate in those kinds of readings which are relevant to read rapidly are all necessary skills. Being able to ask questions is also related to comprehension as is being able to understand the purpose of the writer.

There are a variety of other factors that aid comprehension. Factors generally considered under 'learning principles' are of great importance relative to what one learns and remembers from a reading. First of all, motivation and drive are fundamental, as is also the amount and nearness of reinforcement. Reinforcement suggests that the reader gains some tangible good from his reading, and that this positive effect follows fairly closely the reading act. In other words, the reader finds reading useful, or it brings pleasure in one way or another. He is thus *reinforced* to repeat the activity, in this case reading for meaning or comprehension.

Learning principles also show that one selects a task for learning that presents some challenge, that one prefers a goal that is not instantly achieved but welcomes a certain amount of frustration before the ultimate satisfaction of achievement. Thus a reader, if he sees purpose in it, enjoys learning to read and comprehend at increasingly more difficult levels. But again, he must feel rewarded for his extra work, and reinforcement must be clear. The relevance of the reading must be understood as helping him towards some clearly defined goal, helping him to perform some tasks, or just because he really enjoys it. But reading, as a learned act, must be seen as relevant and meaningful to the reader or he will not come to learn it well.

CRITICAL READING

The end result of the many training programmes at the adult or college level is literally to train one to finally become a critical reader. All the training in reading and all the practice in various reading skills lead ultimately to this goal—that of preparing the reader for critical reading—for helping him to read with analysis and judgement.

Critical reading requires a contribution by both the author and the reader and an interplay which usually results in a new understanding, according to TRIGGS. The reader must have all the various skills of reading. He must be able to analyse quickly through skimming, the directions, the main idea, the purpose of the writer, so that as he then reads, he can make some decisions in his own mind as to whether the author has fulfilled his apparent intended direction and purpose for the writing. Before he can evaluate such aspects as the author's purpose, accuracy or implications, the reader must be able to identify the facts.

Once he identifies the facts then he should begin to apply his tools for evaluation. He should check how reliable the information is; how recent it is; how accurate it is; and how competent the writer is.

In addition, the reader must find out what is the author's purpose. Is it to inform? Is it to persuade? Is it to entertain? Is it to interpret a point of view? Is it to incite into action? A casual glance at daily newspapers will give you examples for all of these. One article may be informational, such as news report, *e.g.*, such and such a thing happened in certain town; or it may be that the purpose of the article is to persuade you. It may be that the person who writes it wishes to leave you with a particular feeling about his topic. May be that he simply wants to entertain you and you find much of that in the newspaper especially the Sunday supplement. Many times one can find articles that interpret a situation. Again, one might write an article to incite you into some action such as aid to the Bangla Desh. Advertisements are again of this nature. They would not have been written in the first place if it were not to incite you into action.

Once the reader finds out the hidden purposes or view points, then he must examine the implications present in the material. What inference is suggested by his tone, choice of words or style? Obviously if his purpose is to inform, then he generally uses a matter of fact tone. The writer may not use colourful adjectives or adverbs, but simply states the facts precisely as they happened. On the contrary, if he wants to persuade you, then he may use the tone or mood which will be in keeping with the way he wishes you to react. For example, if he is attempting to persuade you to vote for him and persuade you not to vote for the other party, then his attitude or tone or his mood could be cynical, it could be satirical, it could be sarcastic, it could be critical and so forth. A good example of this is the famous speech of Mark Antony on Caesar's assassination. How cleverly Mark Antony incites action against Brutus and his associates. Mark Antony used many of the above mentioned techniques, such as irony and satire.

A writer or speaker uses special styles also. For example, he may get attention by repetition. Hitler used this technique extensively. He boasted that one can make people believe anything if it is repeated often enough. Advertisements also get results in the same way. On the 'Critical Analysis Checklist' is a listing of other styles that writers or speakers use best to carry their thoughts. Study the listing and remember it the next time that you read or listen to a speaker.

Writers may also use special techniques to win your confidence and attention. They may out-and-out misquote, make statements out of context to appeal to your emotions, etc. The 'Checklist' also contains a listing of many of these special techniques used by writers and speakers. Study it for future reference.

Finally, how would you evaluate the content of the writing or speech? Do you think it increased your scope of learning? Do you think it was well-rounded? These and other hints for evaluating a speech or a writing are also listed on the 'Checklist'.

These are some of the 'Checks' that a critical, competent reader or listener makes when he reads or listens.

CRITICAL ANALYSIS CHECKLIST

Speaker's Purpose:

1. To inform
2. To persuade
3. To entertain
4. To interpret
5. To incite into action

Speaker's Tone:

1. Cynical
2. Satirical
3. Sarcastic
4. Humorous
5. Critical
6. Sentimental
7. Solemn
8. Ironic

Speaker's Style:

1. Repetition
2. Question-answer
3. Conclusion-proof
4. Opinion-reason
5. Problem-solution
6. Fusion of details
7. Comparison and contrast
8. Events in time sequence
9. Positive statements
10. Rhetorical questions
11. Dramatic
12. Various thought relationships
13. Cause-effect
14. Analogy

Evaluation of Content:

1. Increased scope of learning
2. Well-rounded discussion
3. Definite position supported
4. Useful to society
5. Relevant
6. Clarifies complex ideas
7. Complete analysis
8. Scientific slant
9. Moral
10. Utilitarian
11. Draws inferences
12. Makes predictions

Speaker's Techniques:

1. Misquoting
2. Statement out of context
3. Appeal to emotion
4. Personal attack
5. Irrelevant evidence
6. Oversimplification
7. Ignoring of evidence
8. Arguing in a circle
9. Ridicule
10. Distortion
11. Generalization
12. Straw-man technique
13. False analogy
14. Confused wording
15. 'Oldness is goodness' (and *vice versa*)
16. Inadequate sampling
17. Intimidation
18. Card stacking
19. Either-or distinctions
20. Appeal to authority
21. Presupposition
22. Appeal to ego
23. 'Big lie'
24. 'Everybody's doing it'
25. Because it's good for me, it's good for you
26. Endorsement
27. Appeal to sex, status, wealth, fame
28. Tear-jerking
29. Snowballing
30. Technical or obscure language, jargon
31. Appeal to the hopeless
32. Long-established belief is fact
33. Plain folks
34. Transfer

35. Pretty words
36. Ugly words
37. Repetition
38. ‘Loud and long’
39. Partial analysis
40. Rationalization
41. Band wagon appeals
42. Distractors
43. Extravagant expression
44. Logical fallacies
45. Inconsequential statements (non-sequitus)
46. Meaningless jargon (gobbledygook)
47. Tabloid thinking

FLEXIBLE READING

The ability to read *flexibly* is the mark of mature readers. The flexible reader reads one selection differently than another, based on the selection's level of complexity, vocabulary difficulty, and the reader's familiarity with the material written about. In selecting a method of reading, the mature, flexible reader also considers his purpose for reading and what he needs to gain from the selection. He also considers the writer's purpose and what the writer wishes to accomplish by having his selection read.

In order to make these assumptions about a selection, the reader must first make these inferences without a complete reading. He must prepare himself for the reading, so that he can select for the reading the proper frame of reference and attitude proper for a particular selection. He does this by *previewing*, or skimming over the selection. In previewing, the reader looks at the title and the author's name and thinks momentarily about them: what direction could a topic by such a title take? Who is the author? What is his position or direction on such a topic likely to be? Then the reader takes a very short time (probably no more than 30 seconds a page) to look at the sub-headings, first sentences in paragraphs, underlined words, italicized words, numbered sequences, concluding statements, etc., to further gain information about the writer's purpose and direction. The reader, during the previewing, should ask such questions as 'Why did the writer write this?' 'What is his real purpose?' 'Was this written to inform me of something, or to persuade me relative to a given opinion?' 'Does he want me to take some action after I have read?' 'Does his writing seem to be based on opinion or research?' These and many other questions should mentally flow through the previewer's mind as he *very flexibly* skims over the material page by page.

After the previewing, the reader is *now ready to read to answer the questions raised in the preview skimming*. His mind is in a readiness state for the greatest comprehension. He can also read more rapidly because he is already partly familiar with the purpose, main idea and intention of the writer. Like previewing or skimming a map before a trip, the reader has prepared his mind to know what turns to take and where special caution or attention should be directed. If, for example, the previewer notes that the selection is political in nature, he will be aware during the actual reading of the probable propagandistic devices that the writer will use. If, on the other hand, the selection is on a particular episode in history, the previewer has time to arrange and order his thoughts in terms of placing the happening sequentially in history, and bringing to bear what other background knowledge he, the reader, may have that bears on this particular episode.

It may be, that after a preview, the reader feels that he is well informed on the subject through previous readings or experiences, and may wish only to *scan* for a particular detail or two. *Scanning* means just that: looking for a *specific* detail or idea in the body of a writing. This skill can be most useful when looking for names, dates, figures, etc., in the body of a writing, when it is not necessary to read the entire selection.

Rapid Reading is a process in the whole concept of being a flexible reader. If, after a preview, it is felt that the complexity of the selection and the reader's needs for the information do not justify a close, careful reading, then a very rapid reading, or a reading—skimming technique may be enough to give the reader all the information he needs. He may not read all the words, in fact, just as he moves along through the selection he can feel whether or not a careful word by word reading is required, or whether a rapid sampling of sentences or words here and there are not enough to serve his purpose. Again, for a particular reading, the reader may indeed need to read slowly and carefully.

This method of reading—reading flexibly—is based on all that is known through research about mature reading.

In the chapter on perception or how vision takes place, it was pointed out that the eye does not take in large numbers of words at a time. But perception works on a *Gestalt* or configuration principle—that is, the eye and mind put together through inference the bits and pieces of our environment and conforms them to a reasonable pattern based on past experience and in keeping with our expectations. The more the past experiences and the more specific our expectations, the more quickly *Gestalt* will form to give meaning. Thus, by skimming or previewing before a reading, we prepare our mind to form ideas from the page when we read based on a minimum of clues—that is, to form ideas from incompletely read sentences, and sampled words from the page. A preview done properly can prepare the mind to react to the reading in this way.

READING IN THE CONTENT AREAS

Obviously, a person who has a basic skill in reading can read with some skill in a variety of areas. General skills have an application to any field. A person who can read well in literature can read in science. But he may not read nearly as well. A person who can read science well may not be able to read literature effectively. A person who reads scientific materials quite exclusively as a profession tends to be a slow, laborious reader in the area of literature. There are certain concepts and generalizations about these disciplines which make them in part mutually exclusive, particularly if the person has very high degree of skill in one or the other.

Many research studies show that there are particular skills related to each area or discipline and these must be taught directly as well as generally through courses in reading. On the other hand, some skills are generally useful in reading in any area. For example, the ability to interpret facts and data is common to all kinds of reading. The ability to discover the main idea, to organize ideas, to draw conclusions and to appreciate the literary devices of the writer are common to all fields.

But on the other hand, vocabulary, experiences and ways of organizing material will vary from one content to another. Thus equally intelligent readers may vary greatly in readiness for a particular type of reading. Each area poses its own problems, *e.g.*, a specialized vocabulary in literature is quite different from the specialized vocabulary in science, even to the point that a word used in science may have a different meaning when used in literature or social studies. Maps, tables, graphs, abbreviations, indexes and diagrams are some of the needed skills when one gets into the special areas of reading.

Reading In Literature

First of all, literature can be considered the world's cultural catalyst. Literature is the product of man's culture, and culture is the product of man's literature. How man's culture developed, how it became a functioning part of the world and how he transmits this culture on from one generation to the next is partially explained through the function of literature. Our world is neither articulate nor meaningful without the catalyzing influences of the orderly recounting of man's interpretation of these phenomena through his literature. Surely one of the great humanizers is man's ability to tell about himself and to record these insights for others to read. As one writer says 'only man tells tales of old heroisms and antique infamies, of things long gone or perhaps never to come; only man puts the word inside his skull at the disposal of others. Man alone is the recorder of myths and battles and hopes and fears, a teller and seller of dreams.' Indeed, man's journey from the cave to the stars has its energy and direction from our innumerable ancestors who have laid out the trail thus far for us through books.

If we accept the idea that the art of being human is locked up in literature, and that we are less human as we are untempered by a knowledge of man's triumphs and losses or unacquainted with his dreams, then we understand that literature is a lively energizer, a potent force that has more power than any other in making a civilization what it is. As someone remarked 'the pen is mightier than the sword'. Prewar Germany knew this because she had her books destroyed to do away with history. Aldous HUXLEY knew this, for he fashioned his brave new world from reshaping its literature.

If one of the great reasons for literature is its humanizing powers, then the teacher of literature becomes more than a technician for unravelling stories; he is indeed a philosopher, psychologist, historian, a believer in dreams and young people. The teacher of literature holds an exceptionally important position in the emotional and intellectual life of the students. If this teacher can give direction and meaning to the ambiguity of his students' split worlds, if he can help to bring to his student a knowledge and understanding of himself and others and if he can help his student to fit all these parts together into a unitary concept of life, he will have made a notable contribution indeed. He is the psychiatrist of the book-shelf rather than the couch. As surely as does the analyst, he helps to bring reality and structure back to his students' lost horizons.

Teacher Attitudes In the Teaching of Literature

But all philosophy, to be useful, must lead to a change of attitudes, and these attitudes to action. What attitudes can this teacher of literature cultivate that will help him lead his students to gain order out of chaos, direction out of aimlessness?

First of all, he must believe in literature for himself, and believe in it enough to read it widely and intensively, lightly and deeply. He must know it and use it. He must see its relatedness and usefulness to his world and be able to indicate this to others, subtly and without offence. When I was in college, my English literature teacher was to me the epitomy of this ideal. A native of England and a graduate of Oxford, he made the works of the English essayists and poets a part of the reminiscences of his own experiences with a simplicity and charm that brought Blake's London back to life once again, and made Boswell's England a familiar haunt once more. I do not remember being required to memorize many lines, or to explain the writer's methods or techniques, but I do remember England and her writers as they somehow were a real part of this teacher. I felt with him as he reminisced with Blake on how he—

Loved to rise in a summer morn
When the birds (sang) on every tree;
(And) the distant huntsman (wound) his horn,
And the skylark (sang) with me.[1]

He made literature a part of our own experience by allowing us to join with him in a vicarious emotion which was a part of himself.

A second construct that may be suggested is that the high school teacher of literature indicates through his assignments and guidance that he believes that every student is in some degree different from each of the others in abilities, interests, drives, motives, experiences, skills and aspirations. There are many studies and summaries of research available which will familiarize the teacher of literature with reading materials recommended for the age/sex/motivation patterns of the average student. But more important than following a reading list, this teacher realizes that while there is probably a central core of interests generally common to his students through which he can make group assignments, the individual represents a core of interests and needs that are his alone. GETZELS[2] describes this core of interests as a 'style of life' which helps determine what a person will see and hear, think and say, and remember and forget. Literature that the student selects must either act as a source of information to this 'style of life' or it must act as a vicarious substitution for the real world which he cannot fully sense otherwise. To meet this individual level of needs, books should be available that meet both a wide range of reading levels and skills, and a broad range of interests, including those dealing with the prime motivators of love and affection, belonging, approval, independence, adequacy, prestige, the love of adventure, curiosity and the thrill of discovery.[3]

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[1] **William Blake, 'The Schoolboy'.**

There are many needs and problems that the adolescent has that can be met or solved through insights gained through wide reading. Reading can bring to our students suggestions for socially approved patterns of behaviour, confirmation that his own problems are not unique, a knowledge of the diverse patterns of life of the past and present with intimations for a more ideal society, increased social sensitivity, imaginative sympathy and vicarious participation of experience, and a release from the trappings of time and space.

Many studies indicate that a guided programme, including an interest inventory and individual and group conferences on book selection improved significantly both the students' growth in skills and their initiative and interest in books.

It is necessary to understand students' individual differences for proper guidance in book selection. It might be assumed, for example, that because a student comes from a high socio-economic background and is intelligent, he can read any of his textbook's literary offerings with equal skill. But read carefully again, for example, the first lines of Milton's *Paradise Lost* or Herman Melville's *Moby Dick*. Because the reader can say the words is no indication that he has the readiness to comprehend what he reads. References to mythology, philosophy, the Bible, and the

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[2] Jacob W. GETZELS: 'The Nature of Reading Interests—Psychological Aspects', in *Developing Permanent Interests in Reading*, Supplementary Educational Monographs, No. 84, 1956, pp. 5-9.

[3] Louise M. ROSENBLATT: *Literature as Exploration*. New York: D. Appleton-Century Company, Inc., 1938.

difficult and sometimes obsolete language of these writers may well be far beyond the understanding of a student untrained by a family background accustomed to dialogues with these philosophers on life.

If this can be true of the student from a middle- or upper-class culture, how much more so is it true of the culturally deprived individual? For him the accepted literary experiences of the classroom are foreign to his values and mores. Little or no family interest or pride is indicated in successful work, and his whole verbal communication pattern may represent inferior speech and very limited vocabulary. Studies by LECKY conclude that 'any value . . . which is inconsistent with the individual's valuation of himself cannot be assimilated, it meets with resistence and is likely, unless a general reorganization occurs, to be rejected'.[4] Individual guidance must be a part of the selection of literature, particularly for those students whose life patterns are exceptionally different.

Another frame of reference for the teacher is that a teacher of literature, if he believes in the cultural and humanizing power of his craft, will be somewhat wary in the use of gimics and gadgets to produce short cuts to instant culture. Various study formula, if used with discretion, do help to make the student a more efficient reader.

A last general teacher-attitude I shall mention is one that concerns itself with the evaluation of learning in literature. Studies in educational psychology indicate that students learn in the manner of their evaluation, not in the manner of their instruction. That is, a teacher may concern himself with teaching literature and guiding the student's reading in literature in a way calculated to produce a variety of changes in the student including awareness of his own motives and needs, responsibility to others, loyalty, patriotism, fair play, interpersonal relations, the fun of reading for its own sake and the like. But, contrary to all our labours, students do not learn these habits of attitude through reading if evaluation of reading is dominated by factual questions only. Neither will deeper insights in the literature itself be produced if evaluation does not require the student to examine the insights he has gained through reading. It is the student's own insight, after all, that is the important thing. Although detail and structure are important, the private, internalized meaning is the thing we want to have happen. Somerset MAUGHAM, in *The Summing Up* concludes: 'But the only important thing in the book is the meaning it has for you; it may have other and much more profound meanings for the critic, but at second hand they can be of small service to you. I do not read a book for the book's sake, but for my own'.[5]

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[4] P. LECKY: *Self-Consistency—A Theory of Personality*. New York: Island Press, 1951, p. 153.

Social Studies

The former part of this discussion was on attitudes in reading literature. The second part of it is a discussion of the skills needed for reading social studies. Here again, the vocabulary is very important because the words may be used quite differently from their use in another field. The use of charts, diagrams, maps and pictures are also important and these the student should know how to read and interpret. The fact that many people have difficulty in gaining ideas from charts and graphs would indicate that very likely they have not been taught how to use these particular aids which in social studies are of great importance.

Another factor in reading social studies is the forming of concepts. To begin with, the concepts used in social studies are at best difficult for even adults to understand. For example, the words 'liberty' and 'freedom' may differ from country to country. Unless we can involve our students in a free and open discussion of terms like these and help them to look at them from many sources, the idea of forming concepts will be poor indeed.

Critical reading skills which we have already discussed are absolute requirements for reading of social studies. How the writer has arrived at his assumptions and how he directs his thoughts towards the solution of various social problems must be followed by a critical inspection by the reader. The reader should not be interested only in facts but also in the writer's interpretation of these facts. The reader should see whether or not they agree with the interpretations which he has received from various other sources. He should shift and organize the writer's ideas, select some and reject others. In other words, it is the whole process of evaluating the authenticity and validity of the material and formulating an opinion about it based on a pooling of as many ideas on the subject as the reader can bring together.

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[5] W. Somerset MAUGHAM: *The Summing Up*. New York. New America Library, 1938, p. 60.

In terms of the special skills for critical reading in the social studies, one must be able to recognize the author's assumptions and bias, and his special interests. What does he mean by his assumptions? Any writer has to follow some assumptions or he cannot write. But the question is, do you agree with the basic assumptions from which the author makes his remarks? If you do not agree with his basic premise, it naturally follows that you cannot agree with the rest of what he has to say if it follows from the false premise. For example, if one reads the history textbooks of India in the early twenties—they were written by English writers with their own built in bias. Indian heroes like Shivaji were not pictured in a good light by writers of their period.

The reader should go beyond an evaluation of the adequacy and the appropriateness of what is being presented, and make judgements concerning the wisdom of action taken, and the conclusions arrived at. In other words one should bring into play all of one's basic values. One must not let the writer make value judgements for him; he should bring his own value judgements into play and match them with the writer's.

Has the writer oversimplified problems? Has he ignored evidence? Has he used false analogy? Has he gained his information by inadequate sampling? Does he make presuppositions which cannot be logically made? These are some of the writer-errors to look for as one uses one's own judgements in reading social studies materials.

Another common error is failure to examine all of the alternatives. In cases where the author has given 'either' 'or' situations one has to think of all the other possible alternatives before accepting the author's alternatives.

He should be able to formulate hypothesis of his own as he looks at various social problems. He should be able to go further afield than a single text to locate other information bearing on the specific problem, and to identify those particular readings which are important to his specific purpose and to do this by a very quick skimming and previewing process. The reader should be able to organize by drawing materials together and by skimming to recognize that there are relationships between one particular reading and another and to select it for further reading and to recognize prevailing trends as they run through a series of materials.

One of the great needs of teaching any type of social studies, particularly in relationship to history or geography, is the understanding of the time and space relationships. This again is related to concept formation and these concepts cannot be found without making available many ways of illustrating them.